

# OSV *Bold* Surveys



January - March 2007 Update

Prepared: March 15, 2007

## In Brief:

- The OSV *Bold* 2007 calendar is final. Surveys will take place throughout the Atlantic, the Gulf of Mexico, and the Caribbean.
- Installation of a new A-frame on the stern of the OSV *Bold* was completed in March. This addition will help OSV *Bold* scientists' in the deployment and retrieval of heavy sampling equipment (see photo below).
- The first Gulf of Mexico hypoxia survey of 2007 will take place in April.

The OSV *Bold* is beginning 2007 with Region IV surveys off the coast of Florida. Five tasks will be accomplished through two surveys in March.

## Survey One

### 1. Artificial reef PCB study

Samples of animal tissue will be collected from artificial reef sites to determine if polychlorinated biphenyls (PCBs) from reefed commercial cargo vessels are present in marine animal communities occupying these reefs. While further sampling may be needed, the results could determine if non-military vessels require chemical testing and additional cleaning prior to sinking as reef material. This study is building on previous vessel artificial reef PCB surveys.

### 2. Delray outfall effluent study

This survey will examine the relationship between the Delray outfall effluent, cyanobacterial (also known as blue green algae) blooms in the area, and coral reef health. The Delray outfall effluent is a source of compounds such as nitrates, nitrites, and phosphates. This area has also seen localized blooms of the cyanobacteria *Lyngbya*, an indicator of effluent exposure. The stress responses in hard corals living downstream of the outfall will be measured and monitored.

### 3. Coral rapid biological assessment

This survey will record core measurements (coral species, colony size, and proportion of live tissue) of select coral reef communities. This assessment will assist resource managers in tracking changes in coral condition. This survey is part of a research effort to monitor potential effects of global climate change.

Survey duration: March 15- March 20, 2007

Chief Scientist: Roland Ferry (EPA Region IV)

Survey Partners: EPA Office of Research and Development's Gulf Breeze Laboratory and Georgia Tech

## Survey Two



Installation of the new A-frame

### 1. Canaveral ocean dredged material disposal site status and trends

The purpose of this survey is to monitor for changes in the physical, chemical, and biological characteristics of the seafloor and water column in and around the Canaveral dredged material disposal site. The last environmental impact study at this site was in 1990.

### 2. Central Florida reference evaluation

This study is an ongoing EPA effort to develop a database of background tissue values in benthic communities (bottom life) within EPA waters (surveys already completed in the South Atlantic Bight and northeastern Gulf of Mexico). These values are used to assess bioaccumulation in benthos at dredged material sites.

Survey duration: March 26- March 31, 2007

Chief Scientist: Mel Parsons (EPA Region IV)